## IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A software update device configured to communicate with a target update device via a network, the software update device comprising:

a certification information setting unit configured to generate a first certification information, and transmit the first certification information to the target update device over a connection via a first communication protocol over the network and request that the target update device store the first certification information, and disconnect the connection via the first communication protocol after receiving a notification that the target update device stored the first certification information;

a certification requesting unit configured to transmit the first certification information a second certification information to the target update device over a connection via a second communication protocol, and request the target update device to execute a certification process with the first and second certification information; and

a transmitting unit configured to transmit an update software that updates a software of the target update device to the target update device via [[a]] the second communication protocol over the network when the certification process succeeds via the first second communication protocol, the second communication protocol having a process load less than that of the first communication protocol.


Claim 2 (Previously Presented): The software update device as claimed in claim 1, further comprising a certification information invalidation requesting unit configured to request the target update device to invalidate the first certification information subsequent to the transmittal of the update software.

Claim 3 (Original): The software update device as claimed in claim 1, wherein the software of the target update device is updated when requested by an external unit.

Claim 4 (Previously Presented): The software update device as claimed in claim 3, further comprising a notification unit configured to notify a result of updating the software of the target update device to the external unit.

Claim 5 (Previously Presented): The software update device as claimed in claim 1, wherein the first communication protocol is SSL.

Claim 6 (Previously Presented): The software update device as claimed in claim 1, wherein the second communication protocol is FTP.

Claim 7 (Previously Presented): The software update device as claimed in claim 1, wherein data transmitted via the first communication protocol is encoded, wherein data transmitted via the second communication protocol is not encoded.

Claim 8 (Currently Amended): A software update system comprising:

a software update device; and

a target update device in communication with the software update device via a network;

wherein the software update device comprises:

a certification information setting unit configured to generate a first certification information, and transmit the first certification information to a target update device over a connection via a first communication protocol over the network

and request that the target update device store the first certification information, and

disconnect the connection via the first communication protocol after receiving a

notification that the target update device stored the first certification information,

a certification requesting unit configured to transmit the first certification

information a second certification information to the target update device over a

connection via a second communication protocol, and request the target update device

to execute a certification process with the first and second certification information,

and

a transmitting unit configured to transmit an update software that updates a

software of the target update device to the target update device via [[a]] the second

communication protocol over the network when the certification process succeeds via

the first second communication protocol, the second communication protocol having

a process load less than that of the first communication protocol;

wherein the target update device comprises:

a memory unit configured to store the first certification information,

a certification unit configured to execute the certification process by using the

first and second certification information when requested to execute the certification

process, and return a result of the certification process to the software update device,

and

an updating unit configured to receive the update software when the

certification process succeeds, and update the software of the target update device.


Claim 9 (Previously Presented):  The software update system as claimed in claim 8,

wherein the software update device further comprises a certification information invalidation

requesting unit configured to transmit an invalidation request to invalidate the first

certification information to the target update device subsequent to the transmittal of the update software, and wherein the target update device further comprises a certification information invalidating unit configured to invalidate the first certification information when receiving the invalidation request.

Claim 10 (Previously Presented): The software update system as claimed in claim 8, wherein the target update device further comprises:

a restarting unit configured to restart the target update device after the software is updated by the updating unit,

a start notification transmitting unit configured to transmit a start notification informing that the target update device is started to the software update device when the target update device is started, and

a version information transmitting unit configured to transmit version information of the target update device in response to a request from the software update device;

wherein the software update device further has a version information unit configured to obtain the version information by requesting the target update device to transmit the version information when the start notification is received after the transmittal of the update software, and confirming the update by comparing with version information of the transmitted update software.

Claim 11 (Previously Presented): The software update system as claimed in claim 8, wherein the first communication protocol is SSL.

Claim 12 (Previously Presented): The software update system as claimed in claim 8, wherein the second communication protocol is FTP.

Claim 13 (Previously Presented): The software update system as claimed in claim 8, wherein data transmitted via the first communication protocol is encoded, wherein data transmitted via the second communication protocol is not encoded.

Claim 14 (Currently Amended): A software update method using a software update device configured to communicate with a target update device via a network, the method comprising the steps of:

generating a first certification information;

transmitting the first certification information to the target update device over a connection via a first communication protocol over the network;

requesting that the target update device store the first certification information;

disconnecting the connection via the first communication protocol after receiving a notification that the target update device stored the first certification information;

transmitting the first certification information a second certification information to the target update device over a connection via a second communication protocol;

requesting the target update device to execute a certification process with the first and second certification information; and

transmitting an update software that updates a software of the target update device to the target update device via [[a]] the second communication protocol over the network when the certification process succeeds via the first second communication protocol, the second communication protocol having a process load less than that of the first communication protocol.

Claim 15 (Original): The software update method as claimed in claim 14, further comprising a step of requesting the target update device to invalidate the first certification information subsequent to the transmittal of the update software.

Claim 16 (Original): The software update method as claimed in claim 14, wherein the software of the target update device is updated when requested by an external unit.

Claim 17 (Original): The software update device as claimed in claim 16, further comprising a step of notifying a result of updating the software of the target update device to the external unit.

Claim 18 (Original): The software update method as claimed in claim 14, further comprising the steps of:

receiving a start notification informing that the target update device is started;

obtaining version information of the software of the target update device from the target update device when the start notification is received after the transmittal of the update software; and

confirming the update by comparing with version information of the transmitted update software.

Claim 19 (Previously Presented): The software update method as claimed in claim 14, wherein the first communication protocol is SSL.

Claim 20 (Previously Presented): The software update method as claimed in claim 14, wherein the second communication protocol is FTP.

Claim 21 (Previously Presented): The software update method as claimed in claim 14, wherein data transmitted via the first communication protocol is encoded, wherein data transmitted via the second communication protocol is not encoded.


Claim 22 (Currently Amended): A computer readable storage medium encoded with computer executable instructions, which when executed by a computer, cause the computer to perform a method that controls a software update device configured to communicate with a target update device via a network, the method comprising:

generating a first certification information;

transmitting the first certification information to the target update device over a connection via a first communication protocol over the network;

requesting that the target update device store the first certification information;

disconnecting the connection via the first communication protocol after receiving a notification that the target update device stored the first certification information;

transmitting the first certification information a second certification information to the target update device over a connection via a second communication protocol;

requesting the target update device to execute a certification process with the first and second certification information; and

transmitting an update software that updates a software of the target update device to the target update device via [[a]] the second communication protocol over the network when the certification process succeeds via the first second communication protocol, the second communication protocol having a process load less than that of the first communication protocol.

Claim 23 (Previously Presented): The computer readable storage medium as claimed in claim 22, wherein the method further comprises requesting the target update device to invalidate the first certification information subsequent to the transmittal of the update software.

Claim 24 (Previously Presented): The computer readable storage medium as claimed in claim 22, wherein the software of the target update device is updated when requested by an external unit.

Claim 25 (Previously Presented): The computer readable storage medium as claimed in claim 24, wherein the method further comprises notifying a result of updating the software of the target update device to the external unit.

Claim 26 (Previously Presented): The computer readable storage medium as claimed in claim 22, wherein the method further comprises:

receiving a start notification informing that the target update device is started;

obtaining version information of the software of the target update device from the target update device when the start notification is received after the transmittal of the update software; and

confirming the update by comparing with version information of the transmitted update software.

Claim 27 (Previously Presented): The computer readable storage medium as claimed in claim 22, wherein the first communication protocol is SSL.

Claim 28 (Previously Presented): The computer readable storage medium as claimed in claim 22, wherein the second communication protocol is FTP.

Claim 29 (Previously Presented): The computer readable storage medium as claimed in claim 22, wherein data transmitted via the first communication protocol is encoded, and data transmitted via the second communication protocol is not encoded.

Claim 30 (Currently Amended): A communication device configured to communicate with a software update device via a network, the communication device comprising:

a certification information setting unit configured to generate a first certification information, and transmit the first certification information to the software update device over a connection via a first communication protocol over the network, and receive a first certification information from the software update device over the connection via the first communication protocol over the network, store the first certification information, and notify the software update device that the first certification information is stored so that the software update device will close the connection via the first communication protocol;

a certifying unit configured to execute a certification process, when receiving the first certification information a second certification information from the software update device over a connection via a second communication protocol, by comparing the first and second certification information received over the first communication protocol with the first certification received over the second communication protocol; and

an updating unit configured to receive an update software that updates a software of the communication device from the software update device via [[a]] the second communication protocol over the network when the certification process succeeds via the

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~~first~~ second communication protocol, and update the software of the communication device,

the second communication protocol having a process load less than that of the first

communication protocol.

Claim 31 (Previously Presented): The communication device as claimed in claim 30,

further comprising a certification information invalidating unit configured to invalidate the

first certification information subsequent to the transmittal of the update software.

Claim 32 (Previously Presented): The communication device as claimed in claim 30,

further comprising a control part configured to instruct an update of the software of the

communication device.

Claim 33 (Previously Presented): The communication device as claimed in claim 30,

further comprising:

a restarting unit configured to restart the communication device after the software is

updated;

a start notification transmitting unit configured to transmit a start notification

informing that the communication device is started to the software update device when the

communication device is started, and

a version information transmitting unit configured to transmit version information of

the communication device in response to a request from the software update device after the

start after the transmittal of the start notification.

Claim 34 (Previously Presented): The communication device as claimed in claim 30,

wherein the first communication protocol is SSL.

Claim 35 (Previously Presented): The communication device as claimed in claim 30, wherein the second communication protocol is FTP.

Claim 36 (Previously Presented): The communication device as claimed in claim 30, wherein data transmitted via the first communication protocol is encoded, wherein data transmitted via the second communication protocol is not encoded.

Claim 37 (Currently Amended): A software update system comprising:

a communication device; and

a software update device in communication with the communication device via a network;

wherein the communication device comprises:

a certification information setting unit configured to generate a first certification information, and transmit the first certification information to the software update device over a connection via a first communication protocol over the network, and receive a first certification information from the software update device over the connection via the first communication protocol, store the first certification information, and notify the software update device that the first certification information is stored so that the software update device will close the connection via the first communication protocol,

a certifying unit configured to execute a certification process, when receiving the first certification information a second certification information from the software update device over a connection via a second communication protocol, by comparing the first certification information received over the first communication protocol with

the first certification received over the second communication protocol and second

certification information, and

an updating unit configured to receive an update software that updates a software of

the communication device from the software update device via [[a]] the second

communication protocol over the network when the certification process succeeds via the

first second communication protocol, and update the software of the communication device,

the second communication protocol having a process load less than that of the first

communication protocol;

wherein the software update device comprises:

a memory unit configured to store the first certification information,

a certification requesting unit configured to transmit the second first

certification information to the communication device, and request the

communication device to execute the certification process with the first and second

certification information, and

a transmitting unit configured to transmit the update software to the

communication device via the second communication protocol over the network when

the certification process succeeds.

Claim 38 (Previously Presented): The software update system as claimed in claim 37,

wherein the communication device further comprises a certification information invalidating

unit configured to invalidate the first certification information subsequent to the transmittal of

the update software.

Claim 39 (Previously Presented): The software update system as claimed in claim 37,

wherein the communication device further comprises:

a restarting unit configured to restart the communication device after the software is

updated,

a start notification transmitting unit configured to transmit a start notification

informing that the communication device is started to the software update device when the

communication device is started, and

a version information transmitting unit configured to transmit version information of

the communication device in response to a request from the software update device;

wherein the software update device further has a version information unit configured

to obtain the version information by requesting the communication device to transmit the

version information when the start notification is received after the transmittal of the update

software, and confirming the update by comparing with version information of the

transmitted update software.

Claim 40 (Previously Presented):  The software update system as claimed in claim 37,

wherein the first communication protocol is SSL.

Claim 41 (Previously Presented):  The software update system as claimed in claim 37,

wherein the second communication protocol is FTP.

Claim 42 (Previously Presented):  The software update system as claimed in claim 37,

wherein data transmitted via the first communication protocol is encoded, wherein data

transmitted via the second communication protocol is not encoded.

Claim 43 (Currently Amended): A software update method using a communication device configured to communicate with a software update device via a network, the method comprising the steps of:

generating a first certification information;

transmitting the first certification information to the software update device over a first connection via a first communication protocol over the network;

receiving a first certification information from the software update device over the connection via the first communication protocol;

storing the first certification information;

notifying the software update device that the first certification information is stored so that the software update device will close the connection via the first communication protocol;

executing a certification process, when receiving the first certification information and a second certification information from the software update device over a connection via a second communication protocol, by comparing the first certification information received over the first communication protocol with the first certification information received over the second communication protocol and second certification information;

receiving an update software that updates a software of the communication device from the software update device via [[a]] the second communication protocol over the network when the certification process succeeds via the first second communication protocol; and

updating the software of the communication device, the second communication protocol having a process load less than that of the first communication protocol.

Claim 44 (Original): The software update method as claimed in claim 43, further comprising a step of invalidating the first certification information subsequent to the transmittal of the update software.


Claim 45 (Original): The software update method as claimed in claim 43, further comprising a step of updating the software in response to an instruction to update the software from a control part.


Claim 46 (Original): The software update method as claimed in claim 43, further comprising the steps of:

restarting the communication device after the software is updated;

transmitting a start notification informing that the communication device is started to the software update device when the communication device is started; and

transmitting version information of the communication device in response to a request from the software update device after the start after the transmittal of the start notification.


Claim 47 (Previously Presented): The software update method as claimed in claim 43, wherein the first communication protocol is SSL.


Claim 48 (Previously Presented): The software update method as claimed in claim 43, wherein the second communication protocol is FTP.


Claim 49 (Previously Presented): The software update method as claimed in claim 43, wherein data transmitted via the first communication protocol is encoded, wherein data transmitted via the second communication protocol is not encoded.

Claim 50 (Currently Amended): A computer readable storage medium encoded with computer executable instructions, which when executed by a computer, cause the computer to perform a method that controls a communication device configured to communicate with a software update device via a network, the method comprising:

generating a first certification information;

transmitting the first certification information to the software update device over a first connection via a first communication protocol over the network;

receiving a first certification information from the software update device over the connection via the first communication protocol;

storing the first certification information;

notifying the software update device that the first certification information is stored so that the software update device will close the connection via the first communication protocol;

executing a certification process, when receiving the first certification information and a second certification information from the software update device over a connection via a second communication protocol, by comparing the first certification information received over the first communication protocol and the first certification information received over the second communication protocol and second certification information;

receiving an update software that updates a software of the communication device from the software update device via [[a]] the second communication protocol over the network when the certification process succeeds via the first second communication protocol; and

updating the software of the communication device, the second communication protocol having a process load less than that of the first communication protocol.

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Claim 51 (Previously Presented): The computer readable storage medium as claimed in claim 50, wherein the method further comprises invalidating the first certification information subsequent to the transmittal of the update software.

Claim 52 (Previously Presented): The computer readable storage medium as claimed in claim 50, wherein the method further comprises updating the software in response to an instruction to update the software from a control part.

Claim 53 (Previously Presented): The computer readable storage medium as claimed in claim 50, wherein the method further comprises:

restarting the communication device after the software is updated;

transmitting a start notification informing that the communication device is started to the software update device when the communication device is started; and

transmitting version information of the communication device in response to a request from the software update device after the start after the transmittal of the start notification.

Claim 54 (Previously Presented): The computer readable storage medium as claimed in claim 50, wherein the first communication is SSL.

Claim 55 (Previously Presented): The computer readable storage medium as claimed in claim 50, wherein the second communication protocol is FTP.

Claim 56 (Previously Presented): The computer readable storage medium as claimed

in claim 50, wherein data transmitted via the first communication protocol is encoded, and

data transmitted via the second communication protocol is not encoded.